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(54) Title: **BACE455, AN ALTERNATIVE SPLICE VARIANT OF THE HUMAN BETA-SECRETASE**

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therapeutically active drugs. The present invention relates to catalytically active beta-secretase (Memapsin2, BACE) variants, and nucleic acids encoding them. The invention is useful in the identification of agents that inhibit the activity of a particular BACE isoform and thus agents and therapies affecting the genesis, development or progression of neuropathological conditions, including Alzheimer's disease and dementia.

(57) Abstract: The present invention relates generally to the fields of genetics, biochemistry, medicinal chemistry and medicine. The present invention more particularly discloses the identification of a human gene variant involved in neuropathological conditions, and methods for the diagnosis, prevention and treatment of such diseases and related disorders, as well as for the screening of